Ship Shoal: Whiskey West Flank Restoration (TE 14-1b)

Coast 2050 Strategy - Regional #14. Restore and maintain the Isles Dernieres island chain.

Project Location - Region 3, Terrebonne Basin, Terrebonne Parish, west spit of Whiskey Island.

Problem – The Isles Dernieres Chain which has been considered one of the most rapidly deteriorating barrier shorelines in the U.S. is losing its structural framework functions for the coastal/estuarine ecosystem including storm buffering capacity and protection for inland bays, estuary and wetlands, human populations and infrastructure. Chain breakup has resulted from both major storm actions and from loss of nourishing sediment from the natural system due to human alterations. Whiskey Island changes from 1978 to 1988 include loss of 31.1 acres per year.

Goals – 1) Restore the integrity of the west flank of Whiskey Island to retain its structural function to the coastal/estuary ecosystem. 2) Add new offshore prime quality sediment into the west flank.

3) Initially restore approximately 387 acres of barrier island habitat to the western flank.

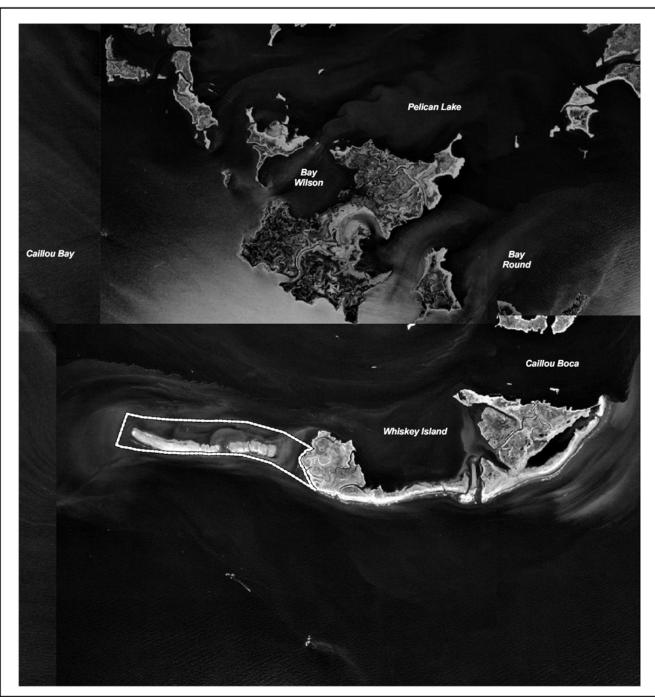
Proposed Solution – Mine and place Ship Shoal sand from the MMS Block 88 by cutterhead or hopper dredge to rebuild the west flank of Whiskey Island, a distance of about 8 miles. Restored areas will include 57 acres of dunes 7 ft high and 150 ft wide, 114 acres supratidal habitat at 4 ft elevation, 208 acres intertidal habitat at 2-ft elevation, and 8 acres subtidal habitat from 0 to - 1.5ft elevation. All areas would be planted and sand fencing placed to trap wind-blown sediment.

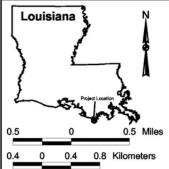
Project Benefits – Benefits include prevention of loss of sediment from the system into deeper Gulf waters or into bayside deeper water. The project would benefit a total of 398 acres of island and shallow water. After 20 years, there would be a net of 182 acres of island over the without project condition.

Project Costs – The fully funded first cost is \$38,985,100; total fully funded cost is \$39,302,900.

Risk/Uncertainty and Longevity/Sustainability A moderate degree of risk is associated with this project due to greater storm effects in this area of the coast and engineering and construction difficulties. Benefits should continue for more than 20 years due to the high quality and compatibility of Ship Shoal sand.

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Project area

Data Source: U.S.Geological Survey National Wetlands Research Center Coastal Restoration Field Station

LA Department of Natural Resources Coastal Restoration Division

Map Date: November 15, 2001 Map ID: 200204138

Image Data: 1998 Digital Orthophoto Quarter Quads (DOQQS) CWPPRA PPL11 Region 3

Whiskey Island West Flank Extension (TE-14-1b)